CLAIMS

Wherein, what is claimed is:

1. A method of forming an anhydrous reservoir layer of an electrode assembly in an electrically powered electrotransport agent delivery device, the reservoir layer being adapted to be placed in agent-transmitting relation with a body surface and an electrode in electrical contact with a power source and the reservoir layer, the method comprising the steps of:

   i. dissolving a beneficial agent in a solvent;
   ii. applying the solvent and dissolved beneficial agent to a surface of a hydrophilic polymer filtration membrane;
   iii. removing the solvent from the filtration membrane;
   iv. disposing the beneficial agent/ filtration membrane within the electrode assembly.

2. The method of claim 1 wherein the solvent comprises water and said dissolving step includes dissolving the beneficial agent in water.

3. The method of claim 1 wherein the solvent comprises ethanol and said dissolving step includes dissolving the beneficial agent in ethanol.

4. The method of claim 1 wherein the solvent comprises isopropanol and said dissolving step includes dissolving the beneficial agent in isopropanol.

5. The method of claim 1 wherein said applying step includes applying the solvent and dissolved beneficial agent to the surface of a polyether sulfone filtration membrane.

6. The method of claim 1 wherein said applying step includes applying the solvent and dissolved beneficial agent to the surface of a polysulfone filtration membrane.

7. The method of claim 1 wherein said removing step includes drying the filtration membrane.

8. The method of claim 7 wherein said drying step includes placing the filtration membrane in a forced air oven.

9. The method of claim 7 wherein said drying step includes placing the filtration membrane in a vacuum drying oven.

10. The method of claim 7 wherein said drying step includes placing the filtration membrane in a desiccator.

11. The method of claim 1 wherein said removing step includes lyophilizing the filtration membrane.

12. A multilaminate dry state electrode assembly for an electrically powered electrotransport agent delivery device, the electrode assembly having a reservoir layer including a substantially non-hydrated hydratable matrix for containing an agent to be delivered, the reservoir layer being adapted to be placed in agent-transmitting relation with a body surface and an electrode layer in electrical contact with both the reservoir layer and a power source, the reservoir layer formed by the process of:

v. dissolving the agent in a solvent;
vi. applying the solvent and dissolved agent to a surface of a hydrophilic polymer filtration membrane;
vii. removing the solvent from the surface of the hydrophilic polymer filtration membrane;
viii. disposing the agent/polymer filtration membrane within the electrode assembly.

13. The electrode assembly of claim 12 wherein the solvent comprises water.

14. The electrode assembly of claim 12 wherein the solvent comprises ethanol.

15. The electrode assembly of claim 12 wherein the solvent comprises isopropanol.

16. The electrode assembly of claim 12 wherein said hydrophilic polymer filtration membrane comprises a polyether sulfone filtration membrane.

17. The electrode assembly of claim 12 wherein said hydrophilic polymer membrane comprises a polysulfone filtration membrane.

18. A multilaminate dry state electrode assembly for an electrotransport agent delivery device, said electrode assembly comprising:

ix. a reservoir layer including a substantially non-hydrated hydratable matrix adapted to contain an agent to be delivered, the reservoir layer being adapted to be placed in agent-transmitting relation with a body surface, and

x. an electrode layer in electrical contact with both the reservoir layer and a power source,

xi. wherein said hydratable matrix comprises a hydrophilic polymer filtration membrane.

19. The electrode assembly of claim 18 wherein said filtration membrane is microporous.

20. The electrode assembly of claim 19 wherein said filtration membrane has a pore size between 0.5 and 10.0 μ.

21. The electrode assembly of claim 20 wherein said filtration membrane has a pore size between 0.5 and 1.5 μ.

22. The electrode assembly of claim 18 wherein the filtration membrane is selected from the group consisting of acrylic copolymers, glass fiber, nylon, mixed cellulose esters, polyvinylidene fluoride, and polypropylene.

23. The electrode assembly of claim 18 wherein said filtration membrane comprises a polyether sulfone filtration membrane.

24. The electrode assembly of claim 18 wherein said filtration membrane comprises a polysulfone filtration membrane.

25. The electrode assembly of claim 18 further comprising a hydrogel layer between the electrode layer and the matrix

26. The electrode assembly of claim 18 further comprising a hydrogel layer on the skin proximal side of the matrix.

27. The electrode assembly of claim 18 wherein the filtration membrane comprises a thickness of about 2 - 10 mils.

28. The electrode assembly of claim 27 wherein the thickness is about 3 - 6 mils.

29. The electrode assembly of claim 18 wherein the matrix is imbibed with drug before incorporation into the electrotransport device.